



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,604	09/27/2001	Eli Razon	RAZON-010	9362

7590 08/28/2003
John B. Sowell
182 Midfield Road
Ardmore, PA 19003-3213

EXAMINER

HAMILTON, ISAAC N

ART UNIT	PAPER NUMBER
----------	--------------

3724

DATE MAILED: 08/28/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/963,604

Applicant(s)

RAZON, ELI

Examiner

Isaac N Hamilton

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 12-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Examiner requests that applicant use the correct serial number, 09/963,604, on any correspondence with the Office in order to avoid any future confusion. It is to be noted that Paper No. 03, filed 6-10-2003, referred to the case as serial number 10/963,604.

Election/Restrictions

2. Applicant's election with traverse of Group I, claims 1-11, in Paper No. 03 is acknowledged. The traversal is on the ground(s) that claims 1-19 are all classified in class 83, and that the election requirement is false and misleading. This is not found persuasive because although the apparatus and method are classified in the same class, there are hundreds of subclasses in class 83. A search by the Examiner in all of the method and apparatus subclasses would be burdensome because the searches are not coextensive. The allegation that the process can be performed by hand and the apparatus can be used to practice a different invention is not false or misleading, and it clearly states that in claim 12, line 5, the limitation "slideably mounted" requires that the outer spindle be mounted on the inner spindle by sliding the outer spindle onto the inner spindle. The Examiner states that another mounting technique may be used in which the outer spindle consists of two halves, and when the outer spindle is mounted on the inner spindle the two halves are assembled about the inner spindle and appropriately fastened together.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second spindle housing in claim 2, the side-by-side mounting in claim 3 and the end-to-end mounting in claim 4, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “49” has been used to designate an air bearing coupling, a flat face hub portion and the flat flange face. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: “understand” on page 6, line 11, should be changed to --understood--; “49” has been used to designate an “air bearing coupling” on page 10, line 4, “a flat face hub portion” on page 10, line 18, and “the flat flange face” on page 11, line 22.

Appropriate correction is required.

Claim Objections

Art Unit: 3724

6. Claim 2 is objected to because of the following informalities: "simultaneously" in line 5 should be changed to --simultaneous--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 2, 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The second spindle housing in claim 2, the side-by-side mounting in claim 3 and the end-to-end mounting in claim 4 should be shown in the drawings.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 7, 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "said positioning motor means" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 8 and 9 recite the limitation "said outer spindle" in line 6. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 5, 6 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Steere, Jr. (5,111,622). Steere, Jr. discloses spindle housing 15; cutting saw in column 1, lines 60-68; coaxial spindle 16, 32; center spindle 32; first mounting means in column 4, lines 34-49; first cutting saw blade 28; outer hollow spindle 16; second mounting means in column 4, lines 11-17; second cutting saw blade 24; axial movement and center spindle and outer hollow spindle rotate at the same rotational speed implied in columns 1 through 2, lines 65 through 8; spindle positioning means in column 6, lines 45-55; air bearing surface juxtaposed between surface 17 of outer hollow spindle 16 and central spindle 32 in figure 2; air-bearing surface juxtaposed between housing 15 and outer hollow spindle 16; movable actuating arm 33; air-bearing coupling is juxtaposed between arm 33 and outer hollow spindle 16; outer hollow spindle and arm 33 are coaxially coupled with a layer of compressed air or other compressed fluid between them as described in column 4, lines 61-65; outer hollow spindle is moving in a rotational manner about its central longitudinal axis; arm 33 is mounted between center spindle 32 and outer hollow spindle 16, outer hollow spindle 16 is mounted on the spindle housing 15, therefore, arm 33 is mounted on the spindle housing 15. It is inherent that there is a spindle drive motor coupled directly to the spindles and mounted on the spindle housing. It is to be noted that a saw is

Art Unit: 3724

defined in the Merriam-Webster's Tenth Edition Collegiate Dictionary as a hand or power tool or a machine tool used to cut hard material. Although the second cutting saw is a grind wheel, the grinding wheel is cutting small particles off of the ingot and is therefore considered to be a cutting saw.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steere, Jr. in view of Ono (4,688,540). Steere, Jr. discloses everything as noted above, but does not disclose two spindle housings mounted side-by-side and does not disclose spindle housings independently moveable in Y and Z axes. However, Ono teaches two spindle housings 134, 136 mounted side-by-side in figure 3 and teaches spindle housings independently moveable in Y and Z axes in columns 9-11, lines 49-21. It would have been obvious to provide two spindle housings mounted side-by-side and spindle housings independently moveable in Y and Z axes in Steere, Jr. as taught by Ono in order to improve cutting efficiency. Note column 2, lines 55-58.

15. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steere, Jr. in view of Azuma (5,842,461). Steere, Jr. discloses everything as noted above, but does not disclose two spindle housings mounted end-to-end and does not disclose spindle housings independently moveable in Y and Z axes. However, Azuma teaches two spindle housings

Art Unit: 3724

mounted end-to-end and teaches spindle housings independently moveable in Y and Z axes in figures 3, 5 and 6. It would have been obvious to provide two spindle housings mounted end-to-end and spindle housings independently moveable in Y and Z axes in Steere, Jr. as taught by Azuma in order to provide a higher work efficiency. Note column 1, lines 44-47.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steere, Jr. as taught by Mueller et al (5,024,127), hereafter Mueller. Steere, Jr discloses everything as noted above, but does not disclose a voice coil actuating means. However, Mueller teaches voice coil actuating means 34. It would have been obvious to provide voice coil actuating means in Steere, Jr. as taught by Mueller in order to provide an actuating means which provides substantial moving power and speed while requiring relatively low electrical power and space. Note column 1, lines 65-68.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cary is cited for similar structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 703-305-4949. The examiner can normally be reached on Monday thru Friday between 8am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082.

Art Unit: 3724

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

JH

IH

August 22, 2003

all

Allan N. Shoap
Supervisory Patent Examiner
Group 3700